PLAG1 cDNA sequence

5/19 FIG. 4A

```
GGCAGCGCAT ACACTACAAT GGCTGCTGGA AAGAGGCGTA AGGAAACAAT  50
TTCCAGGCCC GCCGCGTCCA GCCCGAAATA TGAGAAAAAA ATTATTAGAA  100
ATTCCGCGGG CGGTGTAGAG GCGGCGGACG GGCCGGAGGG AGGATGTTAA  150
AGCCCCGCGG TTGCCTCTTG GTGCTGCCTT GGCCGTATTT GGCACCCAGA  200
ATGCTTCATT CTGTGACGGT CTATTAATAA GGTTGCCTTG CTAGAGTTTG  250
GAGCAGGGCC TCAGATTGGC CAAAATGGGA AGGATTGGAT TCCACTCTCT  300
TCCACGAAGA GTCAATGGGA CTGGCTAAGA TCAAAGTCTG AGGCTTTTTC  350
CATCAGTAAT CAGTCCCTTT TTGCTTTCTT TTACGACCAC ATGAAACTTG  400
AGAAGCCACC TAAAGCTATA TCATTTAGTG GAGTTGGGCA GTTCCCAAGT  450
GTCCAACAAG AAGGCCTGGT TTAGGCTGCG ATGGCCACTG TCATTCCTGG  500
TGATTTGTCA GAAGTAAGAG ATACCCAGAA AGTCCCTTCA GGGAAACGTA  550
AGCGTGGTGA AACCAAACCA AGAAAAAACT TTCCTTGCCA ACTGTGTGAC  600
AAGGCCTTTA ACAGTGTTGA GAAATTAAAG GTTCACTCCT ACTCTCACAC  650
AGGAGAGAGG CCCTACAAGT GCATACAACA AGACTGCACC AAGGCCTTTG  700
TTTCTAAGTA CAAATTACAA AGGCACATGG CTACTCATTC TCCTGAGAAA  750
ACCCACAAGT GTAATTATTG TGAGAAAATG TTTCACCGGA AAGATCATCT  800
GAAGAATCAC CTCCATACAC ACGACCCTAA CAAAGAGACG TTTAAGTGCG  850
AAGAATGTGG CAAGAACTAC AATACCAAGC TTGGATTTAA ACGTCACTTG  900
GCCTTGCATG CCGCAACAAG TGGTGACCTC ACCTGTAAGG TATGTTTGCA  950
AACTTTTGAA AGCACGGGAG TGCTTCTGGA GCACCTTAAA TCTCATGCAG  1000
GCAAGTCGTC TGGTGGGGTT AAAGAAAAAA AGCACCAGTG CGAACATTGT  1050
GATCGCCGGT TCTACACCCG AAAGGATGTC CGGAGACACA TGGTGGTGCA  1100
CACTGGAAGA AAGGACTTCC TCTGTCAGTA TTGTGCACAG AGATTTGGGC  1050
GAAAGGATCA CCTGACTCGA CATATGAAGA AGAGTCACAA TCAAGAGCTT  1200
CTGAAGGTCA AAACAGAACC AGTGGATTTC CTTGACCCAT TTACCTGCAA  1250
TGTGTCTGTG CCTATAAAAG ACGAGCTCCT TCCGGTGATG TCCTTACCTT  1300
CCAGTGAACT GTTATCAAAG CCATTCACAA ACACTTTGCA GTTAAACCTC  1350
TACAACACTC CATTTCAGTC CATGCAGAGC TCGGGATCTG CCCACCAAAT  1400
GATCACAACT TTACCTTTGG GAATGACATG CCCAATAGAT ATGGACACTG  1450
TTCATCCCTC TCACCACCTT TCTTTCAAAT ATCCGTTCAG TTCTACCTCA  1500
TATGCAATTT CTATTCCTGA AAAAGAACAG CCATTAAAGG GGAAATTGA  1550
GAGTTACCTG ATGGAGTTAC AAGGTGGCGT GCCCTCTTCA TCCCAAGATT  1600
CTCAAGCATC GTCATCATCT AAGCTAGGGT TGGATCCTCA GATTGGGTCC  1650
CTAGATGATG GTGCAGGAGA CCTCTCCCTA TCCAAAAGCT CTATCTCCAT  1700
CAGTGACCCC CTAAACACAC CAGCATTGGA TTTTTCTCAG TTGTTTAATT  1750
TCATACCTTT AAATGGTCCT CCCTATAATC CTCTATCAGT GGGGAGCCTT  1800
GGAATGAGCT ATTCCCAGGA AGAAGCACAT TCTTCTGTTT CCCAGCTCCC  1850
CACACAAACA CAGGATCTTC AGGATCCTGC AAACACTATA GGGCTTGGGT  1900
CTCTGCACTC ACTGTCAGCA GCTTTCACCA GCAGTTTAAG CACAAGTACC  1950
ACCCTCCCAC GTTTCCATCA AGCTTTTCAG TAGGATTCTG GGACATGGAT  2000
TCATTACAGA AATGTATGTG TAGCTGTGCC CTAGATGACC ATTTTTATTT  2050
TAGTGCCTAC TTTAAAACAG TATAAAAATT TCTGCTTTTG TATAATACAA  2100
ATTTTCATTA AGCCAGTATA AAATAGAAAC TAGCTTTTAA ACTGAGCTTT  2150
GGAACCATTT GTGTTCAGTT AAGTTTACCT GGGTATTTTG TCCTGATTCA  2200
CTGCCAATTG TCACATTTTA AGACTTTTTT TTTTTCCATA TAGGAAAGCC  2250
ATTATTAGTA GTAAACTTTT ACAAATCCCA TTTTCAAATT ACTTTTAGAT  2300
TGGCTCATTA AAAAATTTAG CAATAGAATG TAAATTGTAT AAAAAGTTTG  2350
TGAATAACTC AAGGGTTTAA ATTTTCTTAC TAGCTTCTAA ATGGATTAAT  2450
AATCAAGTGC TTCAAATGAA TTAAGAGTCC AGTTTCGGAA GATAATAAAT  2500
GTTTGTTAGA TACACCATAA TTTCAGATCA GTATATTCTG AAGACTCTCT  2550
GTTGTCTGGC TAAAATATTT GCCATCTTTA TTATGAGCCT TTAAGGAAAA  2600
CAAACCCTAA ACACAAAGCA TCAGTATTTA TAGCAAAAAG AGACTCTGTT  2650
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AGGTGACATG GCATTTCGTG TCACTTAATA GTTGGCCCTA AATTAGTACA 2700
CAGGATATTT TGTCGTGTTT CATCCTTCTT AACATGCTAT CTTTTCATTT 2750
AATAATAGTA ATAGTGTATG GCATTGGGGT CTTCAGAGTC GATATATAGG 2800
TAGATCTCTT TAGTCTTTTC CACCTTTCAC ATCCAAGGGG TGGGTCAAGT 2850
GCAGCCAGCA ATTTATTTTC ATTGTTGGCC CACGGTTAGT CCATAATCTA 2900
GAGCCATTGT GGAACTGCAG CCATGAGGTG TGTTATCCC ACAGTGGATT 2950
GACTCAGCCT CTGTGGGTGA CAGACTTCTA AGCAGGAAGA TAGACGTGAA 3000
GCACATGGTT ACATTTGGGA ACTTGTGTAG GGATCATGGC CCCTGTAGCC 3050
AGGGTTAAAA ACTGGACTTT TTAGAAGTAA AGTAAAAGCA TAKCGCTTAT 3100
ATCATTTCTT GCTGAATTTG ATATGTTTTT CTTTCCCTTA AGAATCAAAA 3150
GCAGAAAACA AAAACAACAG TCCTACTCCG ATGTTATCTT TCTGATTCAA 3200
TGTGAATCCA TCTTTCCTTG CAATATTTTG GATGGAGAAT TTGAAGTTAA 3250
ATGCATTAGA AAACTACCTG ATGAACTACC ACAAAGTTTT AAGTGACTAG 3300
AAATATATAC AGTAAAATCC CACTTTCATG CATCTCTGGG AAATGATAGG 3350
AGTATTGCAA ATAAGTTGAG TTTGTAGAGG GTAACAAAGT AAAGTAAAAC 3400
AAACCTATCT TGGTTAACAT GAAAATAACA ATTGAGAATA TATTATATTC 3450
ACTGAATAAT TATAGGCTTT TCCTCACATT AGACAACCAA CATAATCTTC 3500
TTAAAGGTCT AATTAATATA TTTTTCTAAG GGTCAGTTGG GACATTAACC 3550
TAAGAAACAT ATCTATTAAG CACTTGTTAA CACCTTATTT TAGGACCCTT 3600
TCCGTTGGGG ATGGGGGCAA GGGTGGGAGG TTTTTAGAAG AGTATATATC 3650
TCTTTAAAAA AAAACAGAAA GAAAAATATT TCTGAGCACT CATTAGCCCT 3700
ATATGGAAAC TTCTTTCCTT TTTGTAGGGC CAGTTATCAC TGCAGATTGC 3750
AATGTTTACC AAGAATTTCT AAAAATGAGT GCAGATTACT GAATATAATA 3800
CATTATTTAA AATATTTGGG AGTAGTATAA TTTGTTGAGA AATGTAAATT 3850
GTAATAATGT AAATGGGGGG CTTCAATATA TATATATAAT ACACACACAC 3900
ACACACATGC ACACATACCG CACTTCATAG AATCAAAGTT GCTCTCTGAA 3950
GGAGCTTTGG CTCCTGATAT TTTATCATGC TCCTATATTT TTTTAATCCT 4000
TGGAGCAGTA GTTTTTATAC TTATGTATTT AAATTTTATT ATGAAAAATT 4050
ACATTTATTA AAAAGTGTG TTCCAAGGC ATTAAAATTA TATATGTTAA 4100
TAAGGAAGTA CATTTTTAAA TTTTTCAAAC TGCTCCTAGC TTTTGATTAG 4150
GAGAATATTT TTTCTGAAAG TAGGCTTTTC GCTCTGCTTC ATTACTGCTT 4200
CCTTTAGTTT CTATGAAACA GATTGCTTAC CTAAATCTTT AGTTGAATGA 4250
TTAGTGTTCA ATATTGCTTT AATCACCATA TAAAAGGAAA AAAATTGGTG 4300
ACAGAGCACA AATAGAAAAC CTATTTTTAA ATAGAAATCA CAAATAGCAA 4350
GTGTGGAAGC ACTACTTTAT TCTGTTTAAA ATGTACTTAA GAAGTCATCA 4400
AATTAGTGAA CTGAGACATT GGCCTTAGTA GGCTGTATTC ACTGCTAATT 4450
TAAAAAGGG AGTACCAGGA TTTATTAAGT AAAGCATTTT GGAAATGGGG 4500
AATAGCGCCA TATATGTATG TATGTGTATG TGTGTGTGT GTGTGTGTAT 4550
ATATACACAC ACACATACAT ACTTAAATCT TGCCCTGCAT GAAATTCAAA 4600
TACATGGAGG CACATCTTCA GGGCACCAGT GTTAAAATTT TGGAGTCTTA 4650
ATTTTCATGT GTACACCTCT TTGCCTGTTC CCACCCCCAG ACTTGAAATA 4700
ACACTTCAGA GTAAGAGGGA ATTCAGCTAA TTTGTTTTTA AAATTGACTG 4750
TAGTGGTCAC TAAACCCTTT TTGAGAGAAT TTCTATTAAA GATGAGGCAG 4800
ACTCGCTTAT TTGAATTGCA CAATGTTCTA ACAAGGATGT AACACAGAAT 4850
TGGCTTTTTT TTCCCTAGAA AAAGATTGTT TGTTTCTATG TCAACTAGAT 4900
ATGATTAAAA ATAAGTATTG CCAATGCTGT TTTCATTCTC TAGTGGCCAG 4950
AATCATTATC CTTGAAATTT CTGGTAGTGC CTTAGCTTGG TTAAAAAAAA 4500
AAAAAAAAAA AAAAAAAAAG GGATTAACAT TAAATAAAAG TAGTTTAGAA 4550
TTTGGGCCTC AGACAAGATA TTGAACCTCA TTCAGTTTCA CTTCCACATG 5100
TATGTACAAG TTAGGTCACC AAACACGGAA GTTGAGTGTG GAAGGATCTT 5150
GGCACTGTAA GCAATGCTAT CCATTGATGT ATACAAGTAC CTTTATAGTT 5200
ATCGATCACT GTTAAAACTT TCATTTTAAA ATCCTATTAC CAAGTTCAGT 5250
TTTTTAAAAC TTCAATTGTC CTGGCTGATT ATGCATCACT CTGTGTGCAA 5300
CTTTTTTATT TCATTTAGTG TTTCTTTCAA GCTGTGTATT TTTGCCTATT 5350
TGTTGCTTGT GCTTTATTTT TCTTAGTCAT TTGTGGAATA TAGTGATATA 5400
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FIG. 4A (continued)

```
TTGTGTTAAT  TTGGACAGTA  GCGGTTTTTA  AAAACCATAT  ACTGACTGAA  5450
ACATGAGCCA  GAGCCGATTG  CTTTATTAAG  CTAATAATGA  ATGTTAAAGA  5500
GTACATATTT  TCAGGATCGT  TCATCTAGTG  AGCAATACAC  ATATTATAGG  5550
CCAATATTTT  TTTAAAAAAT  AGAGCTTGGT  CAACCTCTAT  ACTACACATA  5600
TTACAAGATA  TAGCACTTTC  AAAATGAATC  TAAACCTTTA  CAGAAACTTT  5650
CTTATAGGTT  ATGCCTTTTA  TTTTAAGACT  TATTATAATT  CAAGTGCCAT  5700
TAGATGATAT  ATATGTAGGC  CTTTGATATA  TAATGCTTTG  TGTACAAAAA  5750
TGGTAGATGG  TATTTTAAAC  AGGTACATTT  TTACAGTGTT  TTCTTATCAA  5800
TTTGCTATAT  TGCACAGAAT  CAGTGTGTGT  CTTTTCATAA  GGTTTTACAA  5850
TGGTTTATTT  TTTTACAAGG  TTTACGTGTC  TCAAAGCACA  CTGTCTTCCC  5900
AGTACGTAAG  TTAAAAAATA  CCAGTTCACC  CAAGTTGCTT  CTAGCCTACT  5950
GAGATCCATG  TGACATTGGA  GGAGATCTTT  TAAATGTTTA  GTATTCGTCA  6000
TTAGCAATGG  CTGGCTGTTA  GTTCTGGTAA  ATGTGTGCCT  AAGTTGAATT  6050
TGTCTTGTTT  TTCTCACACT  GTGTCAGCAG  CCATGTCTAC  AACACAGATA  6100
AGTCTGTTGT  GATCACATAG  ATCTACATAA  GTTGTGCAGT  TTTGTGCTAA  6150
AAACCCATAG  GGAGCTCCTT  TGGGATCATA  GAAAAGAAGA  TCATGCAACC  6200
AGCATTGGTG  AAGGCACACT  CAGATTGCAC  TTAGGGCCTT  TCTATGATGT  6250
TGTCAACCCT  CTGAGGATGG  AAGGCAGTGT  CTTTTGATGT  TATCTAGCCT  6300
AGAAATGACA  CAGAACTATT  GCTAATGTAT  AAAACACTTC  ATTATATAAG  6350
CTTCAGTGGT  ACAGATGAAC  CAGAATGAAT  GTTTATCTTC  TCAGAAACAC  6400
TCCTTCAATA  TTATATTGGA  TCATGCTGCT  AATGTAACTT  GGGCTACAAC  6450
TCTTCATGGT  GCTACAAACT  TCTCTGTCTC  ATTCAGTCGT  ATTTTTTTAT  6500
CCATAGAAAA  AGGACTACAT  TAGGTGTAAA  AGTGTACAAT  ATATTTTTAT  6550
ACTGTGACTT  AATTTGTCAT  TAACAAACTT  TTACACCACC  ACAATGTATT  6600
CATGTGCACT  TGCAAAAGGA  GATCTCGGAC  ATGCAAATGT  TACCAGAACA  6650
AACCCAGCTT  TTGTCCACAA  GGTGACTGTA  ACTCAGAATG  GAAAGTGGGC  6700
TTTATAATAG  GGTGTGGAGT  GAAGAACATG  CTGTATGTTA  CTAACAGCCC  6750
TTTGAATTTA  ACAAAAACTG  GGAATCCATT  AGGAAACGGA  TTGCATCATA  6800
CCTGAACATA  AGCTGGACTG  CTGAAATTGT  ATTTTTAGCT  AATGAAAAAG  6850
TGTTTGGACT  AGTACTCTAA  AAATGTTCTA  ATGATAAAGT  TTTGAGTCAA  6900
AATAGAAAAG  AAAAAAATCT  GCATTCCAGG  CCGAATTTTG  TATATTTTTA  6950
TTGCATTTAA  AATTGCTATT  CTGTAATATT  GGGAAATCAA  GTGGCTTATC  7000
ATGTATATCG  TGTACTTAAA  ATGTATTCAC  AAACTACTGT  TGTATTTGTA  7050
TAAAATATAG  ACAAAGATCA  TATTTTTTGT  GTGTGTATAA  GCTCTGTAAA  7100
ATAGCAATCA  CATTATGAAG  CTGCAGTGAT  ACTACATTTT  AAACATTCAC  7150
ATCCAAAGAA  GCAGACTATT  TATTGTCCAT  ATACCAGATT  TAAAATATTA  7200
ATTTGCTGCT  AATTAAATAA  TAGTACTGCA  GCTTCTTGTG  GCCTACAGTG  7250
TTATGTTTGC  TGTAAGAATA  AGATATGTGA  ATTCCACAAA  ATATATGAAT  7300
AAAATCTCGT  GCC         7313
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(SEQ ID NO: 116)

```
PLAG1 Finger 1    FPC..QLCDKAFNSVEKLKVHSYS.HTGERP        (SEQ ID NO: 117)
PLAG1 Finger 2    YKCIQQDCTKAFVSKYKLQRHMAT.HSPEKT        (SEQ ID NO: 118)
PLAG1 Finger 3    HKC..NYCEKMFHRKDHLKNHLHT.HDPNKET       (SEQ ID NO: 119)
PLAG1 Finger 4    FKCEE..CGKNYNTKLGFKRHLAL.HAATSGD       (SEQ ID NO: 120)
PLAG1 Finger 5    LTC..KVCLQTFESTGVLLEHLKS.HAGKSSGGVKEKK (SEQ ID NO: 121)
PLAG1 Finger 6    HQCEH..CDRRFYTRKDVRRHMVV.HTGRKD        (SEQ ID NO: 122)
PLAG1 Finger 7    FLC..QYCAQRFGRKDHLTRHMKKSHNQELL        (SEQ ID NO: 123)


PLAG1 Consensus   ..C....C...F....L..H....H......

C2H2  Consensus   FxCxxxxCxxxxFxxxxxLxxHxxxxHxxxxx
                  Y
```

FIG. 4B

FIG.8A

PLAG2 cDNA and Open Reading Frame (underlined)

```
AGGCTCAAGAGATAAAGACCTTAAAGATAACTTTGTGTCTCTCCCTTTCTAGGTATTTGCATAGGAATCAGAGGA
GTTAATCTTGTCTCTTCTCACTCAGGTTTGAATCTTCAGACAAACTTCTGGGAGGACTCGGTCCCTGCCTCGCAGCA
GATGTTCCCTGTCACTCAGTAGGCCATATGGCTACCACCTGAAAATCTCACCAGTGTGCTCACTGTGAGA
AGACGTTCAACCGGAAAGACCACCTGAAAAACCACCTCCTGGGCTATAAGAGGCACCTGGCCCTCCATGCGCGCAGTGGGG
AGGAGTGTGGGAAGAAGTACAACACCACCTGCCCTGGGCTATAAGAGGCACCTGGGCCACTCAAAGCCCATGCGCG
ACCTCACCTGTGGGTCTGTCGCCCTAGGGAGCACCAGTGCTACTGACCACTGTGAAAGATGCTTCTACACCCGGA
AAGAGAAGCCCCTAGCGGAACCAAGGAAAAAGAAGCACACAGGATGCGACCACTGTCCTGTGCCAGTTCTGTGCCAGAGATTTG
GGCGCAAGGTTCACCTGACGCCACCTGGTGGTCCACACCGGCATACCAAGAGACCCACTCACAGGAGCTTGCAGACCG
GAGACCTTCTGAGCACCTTCCACACCATCTCGCCTTCATTCCAACTGAAGGCTGCGTCTGAGGTCCTTGCCTCTTTCCTT
TAGGAGCTTCTGCGCCAGAACGGGCTTGCAAGTAGCTTGCCAGAGTCCCTGCCCTCCACCCCTCAGTCCCCCAG
AACAAGCCGCCCAGCCTATGCAGCCGCTGCCAGAGTCCCTGCCCTCCACCCCTGTATCCCCTGGCTCTC
CTCCGCACCCCTTCCCAATCACAAGTACAACACCACTTCTACCTCTCCCACTCTCCCCTCGCAAGCCTGCCCCTCA
AAGCAGATACTAAAGTTTTTGCAATATCAGTTGTTGAGGACTTCAGTTGTCCCCCTGGTAAAGTGCTGGCTCAGTCGCTCACCTCAA
AGCTCAACCCAGGTTTGATCTGGCTAAGGGAAATGCTGGTAAATGCTGTCCCCCCGTGGGCTGGCTTGGCCAGCTGCCTCTGCTA
CTGTGAACCTAACAATACCTTGGAATAGACACTCTTTGCCCCTGGGGCCTGAGCCTGGGCCAGCTGTCTGTCTGG
CCCAAAATACCTTTGGAATAGACACTCTTTGCCCCTGGGGCCTGAGCCTGGGCCAGCTCTTTGCCCCACGTGTCTGG
GGCAGCAGCAGAACCCCACTGCCACTGCCTCGCCATCCTGCCATCCTGAGATAATTGATTTTAAAG
ATGTGTTCTCAGCTGGCACTGGCTATTCTGGAAGATGTTTAAGAAGCATTTTAAAGTGTCAGTTACAATATGAGAAAGATTTGGAA
AACGAGACTGGGACTATGGCTTATTCAGTGATGACTGGCTTGAGATGACTGGCTTGAGATGAATTCTCGAACTGCATGTATT
GTGCCAATCTGTCCTGAGTGTTCATGCTTTCATCGTTGTACCAAATTAATGAACGCGTGTTCTGTAATCCAAACTGCAAAT
ATTGTCATAACCAACATCCAAAATGACGCTGTCTATATATAAGTGTTTGTCCATATGGGAATTTAATCCGTAAGC
CCATGGATCCATAAGTTAAACTAAATAACTTTATGGTGGCACTGCCTAGTAAGGAACTATGGAAAGGTTTGGA
TTTCTCCAAATCTGGGAGAATTTCAAAATAAGAAAAATAACCTTTATGATGATAACTATGACTAGGCGTGTGTATT
TCTTTTTCAGGGATTTTCTACCTTCAGGGTTGGATGTAGTTAGTTACTATTACCATAGCCAACCTGTAGTTTTA
CATATACATTTTCTTGTGGAGCAATAGAGTTCTCCATTTTACAGAGCATTTAAATGTAGTTTGAATATTTCC
ACAAGATGCTGCAATGCTGAGTTATCACTTCATTTATCTTAAAGAAGACTAAACTGGTTGTCAGTTACATCGAC
AGAAAAAAAAAATCACTGTGTAACCAGGTTAACGGCGTTAAGTGGTAAAATAATCCAGGGCGTCAGTCAAGGCATTTG
CTGACTTTAATATTGATTATATTTTAACAGGGAATTAAGGAAGAAAAATATTACCTGGGAATTAAAAATATATATA
TATTAAAACAAGAATTTTCTTTGCCTTCTTGCTCTAGCTTAAACCTCTAACCTCCAGCTGCTTAAGKTCCTTAAGTA
TTGTTTGTAATCACCAATAAATAAGTGCATTTGAATTGTAATTCATCTCTTATTATGAGTTTTTAAAAGAAGATTAC
GTTTTACAATGTAACTATAATCTTTATGTTTTTAGAGGCTTTTCCGTAAACATATATCTTACACATATAATAAACTTTCAAA
TCTTGCAAATT
```

(SEQ ID NO: 124)

PLAG2 protein

MATHSPQKSHQCAHCEKTFNRKDHLKNHLQTHDPNKMAFGCEECGKKYNTMLGYKRHLALHAASSGDLTCGVCAL
ELGSTEVLLDHLKAHAEEKPPSGTKEKKHQCDHCERCFYTRKDVRRHLVVHTGCKDFLCQFCAQRFGRKVHLTRH
TKKTHSQELMKESLQTGDLLSTFHTISPSFQLKAAALPPFPLGASAQNGLASSLPAEVHSLTLSPPEQAAQPMQP
LPESLASLHPSVSPGSPPPPLPNHKYNTTSTSYSPLASLPLKADTKGFCNISLFEDLPLQEPQSPQKLNPGFDLA
KGNAGKVNLPKELPADAVNLTIPASLDLSPLLGFWQLPPPATQNTFGNSTLALGPGESLPHRLSCLGQQQQEPPL
AMGTVSLGQLPLPPIPHVFSAGTGSAILPHFHHAFR.

(SEQ ID NO: 125)

FIG. 8B

FIG. 9   Nucleotide sequence of cDNA of <u>CTNNB1</u> (ß-catenin)

```
   1 aagcctctcg gtctgtggca gcagcgttgg cccgcccccg ggagcggaga gcgaggggag
  61 gcggagacgg aggaaggtct gaggagcagc ttcagtcccc gccgagccgc caccgccaggt
 121 cgaggacggt cggactcccg cggcgggggagg agcctgttcc cctgaggggta tttgaagtat
 181 accatacaac tgtttttgaaa atccagcgtg gacaatggct actcaagctg atttgatgga
 241 gttgacatg gccatggaac cagacagaaa agcggctgtt agtcactggc agcaacagtc
 301 ttacctggac tctggaatcc attctggtgc cactaccaca gctcctcctc tgagtggtaa
 361 aggcaatcct gaggaagagg atgtggatac ctcccaagtc ctgtatgagt gggaacaggg
 421 attttctcag tccttcactc aagaacaagt agctgatatt gatgacagt atgcaatgac
 481 tcgagctcag aggtacgag ctgctatgtt ccctgagaca ttagatgagg gcatgcagat
 541 cccatctaca cagtttgatg ctgctcatcc cactaatgtc cagcgtttgg ctgaaccatc

 601 acagatgctg aaacatgctg ttgtaaactt gattaactat caagatgatg cagaacttgc
 661 cacacgtgca atccctgaac tgacaaaaact gctaaatgac gaggaccagg tggtggttaa
 721 taaggctgca gttatggtcc atcagcttc taaaaaggaa gcttccagac acgctatcat
 781 gcgttctcct cagatggtgt ctgctattgt acgtaccatg agaatacaa atgatgtaga
 841 aacagctcgt tgtaccgctg ggaccttgca taaccttcc catcatcgtg agggctact
 901 ggccatcttt aagtctggag gcattcctgc cctggtgaaa atgcttggtt caccagtgga
 961 ttctgtgttg tttatgcca ttacaactct ccacaacctt ttattacatc aagaaggagc
1021 taaaatggca gtgcgttag ctggtggct gcagaaaatg gttgccttgc tcaacaaaac
1081 aaatgttaaa ttcttggcta ttacgacaga ctgccttcaa atttagctt atggcaacca
1141 agaaagcaag ctcatcatac tggctagtgg tggaccccaa gctttagtaa atataatgag

1201 gacctatact tacgaaaaac tactgtggac cacaagcaga gtgctgaagg tgctatctgt
1261 ctgctctagt aataagccgg ctattgtaga agctggtgga atgcaagctt taggacttca
1321 cctgacagat ccaagtcaac gtcttgttca gaactgtctt tggactctca ggaatctttc
1381 agatgctgca actaaacagg aaggatgga aggtctcctt gggactcttg ttcagcttct
1441 gggttcagat gatataaatg tggtcacctg tgcagctgga attctttcta acctcacttg
1501 caataattat aagaacaaga ccaagtgggt ggtatagagg ctcttgtgcg
1561 tactgtcctt cgggctggtg acaggaagaa atcacactgag ctgccatct gtgctcttcg
1621 tcatctgacc agccgacacc aagaagcaga gatgcccag aatgcagttc gccttcacta
1681 tggactacca gttgtggtta agctcctaca cccaccatcc cactgccctc tgataaaggc
1741 tactgtttgga ttgattcgaa atcttgccct ttgtcccgca aatcatgcac cttgcgtga
```

FIG. 10

STSs used to generate the 300 kb cosmid contig mapping
at chromosome 8q12 and encompassing <u>PLAG1</u>

STS CH129
GAATTCTAAAACCATTTATAAATCATACTGAATCCCAGAACAATATATTTTAAACAACTTAA
AAAAAAGAACAAAATAAAATAGCAAAACATTTTTAAGAGTGTAGATTCTTTGAAATTAAAGG
ACATACTTACCCTGTAGT   (SEQ ID NO: 127)

STS CH280
GAATTCTTGCACCGGTTTTTTCTTATCAGTGTGGGCTGATGTTCCATTAACTGTGGTGTAAT
TTGAGTATAGTCACTGACTGATTCTAGATATTTTCAGAGGGTCAAGACTTTTTCTAAGACCT
TTATATGTGGTTGAATTCTTGTTCTTGGTTTCACAGAAGGTATATTAGCAAAGCATTTTTGG
TGTTGAAGCTTGGTCTGTGATCTAGT   (SEQ ID NO: 128)

STS CH33
GAATTCGTTTTTTATTTGACAAGCACATGAAGCCTTATCAGACGGAGGCCTCAATCCTTTGGC
TGGGGTTTATAAGCAGGTAGCGCTAGACCTTCCCATTCTACATAAGCTGATGGGCACGGTAA
TAGCTGGGGGGTTTTCTCACAAGTCAAAGACAAATTGTCTGTTTTCAAGCGTGTGAAACAGTT
wAAWACGTTTGAGGTCTCTCTCTTGCTTCATAGGCCATCTTGGCTCAGACATTCTACAGMCA
    (SEQ ID NO: 129)

STS EM156
TCTGAGCAACAAGAGCGAAACTCCATCTCAAAATATATATATATATAGGTAATTGTTGTCAT
TAATATTAATGTAGTAGCAGCAGCAACAGTCATGGTAGCAATATTGCTCTATTTGGGAGGCA
ACTTATAATTATTAACTGTGGAATATCTTTGAAAAATGTTTTTNGCAGAMGTTATGTTCCCA
TTCCTGACTGGMGCTCATTATAAATACCCATCTTCTCTGAATAGCGCAAGGACTTTTGAAAA
AGTGTTCTGAGTAAAC   (SEQ ID NO: 130)

STS EM195
ACAATCAATTTTAGAAAGTAATCATTTCATTACCCCAAACTGAAACCCTGTACCTGTTAGCA
CTCACTCCCCTTTTCATTTTACTTTTTATTTATTTATTTTTTTGAGAGAGACTTGCTCTATC
GCCCNGGCNVCAGTGCAGTGGCACAaTCTCAACTCACTGCAACCTCTGCCTGCCAGGGTCAA
GTGATTCTTGTGCCTCAGAGTCCCAAGTACCTGGGATTACAGGCATAAGCCACCACGCCTGG
CTAAATTTTGTATTTTCAGTAGTGACGGGGTTTCACCATGTTGGCCAGGCTGTCTCAAACTG
CTGACCTCAGGTAATCCACCCTCCTCAGCCTCCCAGAGTTCTGGGATTACAGGCGTGACACC
GTGCCTGGCTCATTTTATTTTTTAGAGATGAGATCTCACTCTKWTTGCCCAGGCTTCAGTGC
ATTGGCGTCATGATGGCTCACTGCAGGCTTCAGCTCCTGGCCTCAAaGCATCCTTCCGCCTCA
(SEQ ID NO: 131)

STS EM208
CTAGGCGACAGAGCAAGACTCTGTCTCAARGAAAAAaAAAAAaVRAAAAAAATTACCAAAAC
TGACTACAGAAAAVHGVARGGTTGAATAGCCTTACATTTGGVAAATAATTTTTATTTATAAT
TAAAGATATTTTTATAAAAVVTACTCTAGGCCCATAAGGCTTCACAGGTTAATTGTATTAAA
TATTTAAGGAAAAAATAATACCAATCTTATTCATAGTCTTTCAGAAAATAGAGGCGTATCCA
TTTTTCTAACTCATTTTAAGAAATAGCATCATTCTAATATCAAAAGCAAACAAGGMCATTGC
AAAGAAGAAGGGGAAGAAGGAAGAGGAAGAGGAGGAGAAAGGGAAGCAGGAGATGGAGAAGA
AGGAAGCCAGGTACAGTGCAATATTTCTCATGAACATAAACACAATTTTTAAAAAGTATTAM
CAGGCTGGGCTTGGTGGCTCTCACCCGTAATCCCAGCMCTTTGGAAGGCCcAAGGCGGGTGG
GHCACAAGGTCAGGGGTTCGAG   (SEQ ID NO: 132)

FIG. 10 (continued)

STS EM216
TACTRACTGCTGTGCAGTTBTCcTGCAGTCAGTTCCAGAGGTCATTTCTAACGTTGCACTAT
GGGKCTATTTAATAGGTTTCCTAAAGAACAAACATATCTCTTTAbAGTTACTCAGAGGGTAC
ACAATGATGATGTCACACAATTAATTACCTATTAAGACTGAAATCCAGCAATGCATAGKGTG
TGGACTTTACGCACATCCAGAAAAAGTTCTAGCACAAATTGTTTTHGTMTYATATATTTCAG
AAGCCATAGAAACACTATTAAAGCCCTCCCTAATCACTTAGGGATGCAAAaTCAATAT
(SEQ ID NO: 133)

STS EM317
GACCAACAAAGGCACACAAAGATTGGTTGCTTTCTGAAGAATCTAAAAATGGCATTGGGTAT
AGGAGTTGGGGAAGCAAGTTGTATAGGCACCTACACTTAAGATAATTTGTCAATTATACAAA
TAATTTTTAAAGTTTAAGCCCCTTTCTGACATGACACGTCCATGGGTCCTTCACCCTTYTtK
KTCTCCTSCAGAGCTCCAGTCTGCCYYTTYTTKSCTCTGAGCTCCAAAAMCAGTGAWTCCCC
TGAAGTTACCTAGMCCCMCCATACAGTTTGTGACTCCCTAWMCcGGGGGTACCyTCCCATGY
CTGGCTAATAyTGABTYTTGTDTACCGTGGCTTCTGTGTTACTACATTTGTTTTARTGGAAT
TWATwAArGGGAAGCCTATCAA   (SEQ ID NO: 134)

STS EM416
GAGCAACTGAaCDNAGATTGGGTGAGGTAAGATGTGGGCTGCACAGGTGAGGCTGGAGAGGT
GGGGAGTGCGTCCCAGTCGGGGGAGAAGAAGAAAAGGGCAGACTAGGGTAGAAATGCTTATW
ACTcCTGTGACTGGAGCTGATGGTGTCTTAAGGAAAGTGGTGGGAAGGGAGGVCTGCAGAAA
GGCAAGGCTGGAGTCGACTGAAGGCTGGAGAGCCACTGCTTTAACAAGTGTAMCTGGAGATG
GAAGGGGCTGCAGGACAGGTCACTCAGCCAGTKGTGTGGARGCAATCTCACC
(SEQ ID NO: 135)

STS EM443
TTGATATTTGTTCTAACTCCACATTAACTATTGACAAATACTCTAAATTGTAGCTACCATCT
GTTACGTAGCTAGCAGGTACCCTAACAGCAATGGGTCAGCTTTTGAGTAGCGTTTCAACCAT
GTTACCTCGAGTACGGTGTGGTGAGGCCAGACGCAGATGGAGAGAAAGAAACAGAATCGAGC
ATTTCCATTTTGTTTTGCTCACAGTCCCCAGGGGCAAACACAGCACAGCCTACAGGACCATG
AAGGGGAGCACTGGGGTCACTCATGAAGCAGGGAGGTCGGGCCAGTGGTGGGGGgCCTTTAT
GTGTTTTCCTCAGGAAGGAATGGGCAAGGCAGGGTAAGCATGTTCAGGACTGGTTAATTTGA
ATAACTTCAGGGGGgCTCTAGGGCCTGgRGGCTGCCCCTGGTTGTCTGGTACCYgGSCCTG
(SEQ ID NO: 136)

STS EM46
ATATCAATCTTGGGTCTATGTATGTTTTTGCTTTTCCCcAGTGTTCCAGGCATGATGCTAAG
GATATAGTGGATGATGAAATATATGCTTGCTGAATATGGGAATAAGAATTATTTTATGATCA
GAHTTTTTTTTTTTGAGATGGAGTCTCGCTCTGTCAcNMaGGCTVGTGTGCAGTGGCATGAT
CTCAGCTCACWGCAACCTCTGVCTCCTGGGTTCAAGTGATT   (SEQ ID NO: 137)

STS EM47
GTAGAGACACACTAGGCATGCACAGACCAGTGCAGAATGAACAATATTTGTTACATGTGTAG
TTCTTTATGGTTTACAAAACTCTCCCAGCCATTATCTTCTTTCAGCCTTATAAAAGACAGAG
CATATTTTATTATCCTCATTTACCTWHTCTAGTAAGGCATTTTTTCTTTTTTTTCTTACTAGA
GATATAAGGCTTAGGAAAAAAGTGAATACTACGATAAATGAATACTAGGAAAAGACATCACA
ATCACAAATTTATTAATATCAGAAAACAGDTTTTAAGAATAAAATWTTCAAWAARgAAA
(SEQ ID NO: 138)

FIG. 10 (continued)

STS END2
TAATTTATCACTACGGAATTCTGTGCAGTGAGATCAAAGAGCTGTGTATGCCCATAATGTGA
TTTTACAGCCATTTTGTAAAAACTGTAAAATACCTTAATATTCAATTTGGCTTAAGGTACAT
TGAGGACTTCTGGTTGAAAATTACAGAGTGGTGAAGATTC   *(SEQ ID NO : 139)*

Known STSs
PENK
D8S285
MOS

STSs part of PLAG1
EM265
KK64
KK63/EM209
KK55/CH283
EM224
EM387